

Original Article**Knowledge, Attitude and Behaviors of Mothers with 0-1 Year Olds about Infant and Personal Care****Aliye Bulut, PhD****Associate Professor, Gaziantep Islamic Science and Technology University, Faculty of Health Sciences, Department of Midwifery, Gaziantep, Turkey****Gulay Celik****R. A. Bingol University, Faculty of Health Sciences, Dept. of, Nursing, Bingol, Turkey****Correspondence:** Assoc. Prof. Dr. Aliye Bulut, Address: Gaziantep Islamic Science and Technology University, Faculty of Health Sciences, Department of Midwifery 27010 Gaziantep / Turkey, e-mail: aliyedemirok@yahoo.com**Abstract**

Objective: This study was conducted to determine the knowledge, attitudes, and behaviors of the mothers with 0-1-year-old infant about infant and personal care.

Materials and Methods: The population of this descriptive study consisted of mothers who had 0-1-year olds and were registered to family health centers in Bingol city. The sample of the study was composed of 104 mothers meeting the sample criteria. The data of the study were collected between December 20, 2019 and March 15, 2020. Personal Information Form was used to collect the data of the study.

Results: The majority of mothers participating in the study (64.4%) breastfed (85.6%) their infants within the first hour after birth. 79.8% of the mothers stated that they had no knowledge about colostrum. 39.4% of the mothers stated that they did not know the side effects of the vaccines given to their infants and 17.3% stated that they did not know the vaccination time.

Conclusion: The status of the mothers to get information about breastfeeding, infant care, and vaccinations from healthcare professionals was insufficient. It is important that healthcare professionals provide adequate information and consultancy on breastfeeding, infant care, personal care and family planning methods to the mothers.

Keywords: Mothers, Infant Care, Nursing.**Introduction**

Today, many mothers and babies lose their lives due to malpractices made in the pregnancy, delivery and postpartum period especially in the developing countries. The age period of 0-1 years is one of the most important physiological and psychological periods for infants. In terms of mother, postpartum is one of the periods when the woman is most sensitive (Bascetincelik, 2009; Yildiz, 2008). This period is a period also called as the fourth trimester in which the newborn is integrated into the family system and the woman has emotional, physical and social adaptation. Additionally, it is a developmental crisis period, experienced positively by most women, in which the woman plays the motherhood role with the birth of the baby, adapts to new role, and redefines relations with

the family members. In this period, the mother has to achieve developmental and physical responsibilities such as reinstatement of her physical condition, developing skills and confidence related to the infant care, establishing communication with her infant, and adapting to the life style and family structure changing as a result of the participation of the infant who is a new individual to the family (Sword & Watt, 2005; WHO, 1999; Pattinson et al., 2015). In this period, the mother and father should prepare and adapt to new roles and responsibilities due to the participation of a new member in the family. In the postpartum period, the mothers should gain necessary knowledge and skills to adapt to the physiological and psychological changes, accept the motherhood role and the baby and take care of herself and baby when she goes home. In this period, it is important to determine the needs

related to the care of mother and infant and to provide care, training and consultancy services in accordance with these needs (Vural & Akan, 1995; Ekizler, 1996). In this time period when there are changes in many issues, the woman needs for information and consultancy about the care and feeding of the infant, self-care, hygiene, sexual life, nutrition and contraceptive methods, time for baby care, health care for possible or existing complications, support from healthcare professionals, husband and family and rest (Moran et al., 1997).

This study was designed to determine knowledge, attitudes, and behaviors of mothers with 0-1 year-old infants about infant and personal care.

Material and Method: The population of this descriptive study was composed of mothers who had 0-1 year-old babies and were registered to family health centers in Bingol city. The sample size was calculated by taking the power as 80% and significance level as 5% and accordingly, 104 mothers were included in the study. The inclusion criteria were determined as follows; being literate for the mother, being in the age range of 0-1 years for the infant, having no chronic disease for the mother and the infant and being voluntary to participate in the study.

The data of the study were collected using the face-to-face interview method in family health centers between December 15, 2019 and February 15, 2020. In the collection of study data, Personal Information form prepared by the researchers upon the literature review (Egri & Golbasi, 2007; Biltokin et al., 2004; Caliskan & Bayat, 2011) was used. This form is composed of a total of 38 questions about mothers' socio-demographic characteristics (8 questions), obstetric history (4 questions), breastfeeding characteristics (8 questions), having problems with self-care and infant care (2 questions), infant care characteristics (10 questions) and family planning methods (6 questions). The data of the study were evaluated by using Statistical Program for Social Sciences (SPSS) for Windows 22 program. In the data analysis, descriptive statistics were represented as number, percentage, minimum and maximum values, mean and standard deviation.

Ethics Committee Approval: Our study was approved by the Non-Interventional Clinical Research Ethics Committee (Date: 30.03.2018, decision no:40465587-71).

Results

According to Table 1, the mean age of the mothers was 29.08 ± 5.56 , 37.5% were secondary school graduates and 84.6% were housewives. 54.8% of the mothers expressed their economic status as moderate. Table 2, shows that most of the mothers participating in the study (64.4%) breastfed (85.6%) their infants within the first hour after the delivery. 79.8% of the mothers stated that they did not know about colostrum. 23.1% of the mothers did not breastfeed their babies and 75% were using pacifiers or bottles. 50% of the mothers expressed that they received information about breastfeeding from healthcare professionals. In Table 3, is presented that 38.5% of the mothers expressed that they received information about infant care from their family elders while 25% stated that they received the information from healthcare professionals. 61.5% of the mothers stated that they used traditional practices in the care of their infants. Traditional practices used were determined as using amulet and charm with the rate of 52.2%, yellow dressing with the rate of 29.2%, and swaddling with the rate of 13.8%. 58.7% of the mothers stated that they took the fever of their baby by touching and 37.5% stated that they took the fever with thermometer. When the infant had fever, 44.2% of the mothers stated that they took off the infant's clothes and 29.8% stated that they took the infant to a hospital. According to Table 4, 93.3% of the mothers expressed that the vaccines given to their babies were necessary and 57.7% considered that the vaccines had side effects. 60.6% of the mothers stated that they knew the side effects of the vaccines and 82.7% stated that they knew the vaccination time. Most of the mothers (70.2%) stated that they got information about vaccines from healthcare professionals. Table 5, shows that 65.4% of the mothers expressed that they conceived intentionally and knew family planning methods. Only 34.6% of the mothers stated that they received family planning training from a healthcare professional. While 27.9% of the mothers were not using any method, 27.9% were using condom and 19.2% were using IUD. 27.9% of the mothers stated that they used another method but gave up it and these methods were pill (44.8%) and traditional methods (37.9%).

Table 1. Distribution of the mothers and their infants in terms of some socio-demographic characteristics (n=104)

Socio-Demographic Characteristics	Number (n)	Percentage (%)
Age range of mother		
18-30	60	57.7
31-44	44	42.3
$\bar{X} \pm SD$		29.08±5.56
Education Level		
Literate	18	17.3
Primary school	22	21.2
Secondary school	39	37.5
University and above	25	24
Place of residence		
City center	69	66.3
District	13	12.5
Village	22	21.2
Working status		
Yes	16	154
No	88	84.6
Spouse's education level		
Literate	9	8.7
Primary school	27	26
Secondary school	35	33.7
University and above	33	31.7
Economic situation		
Low	38	36.5
Moderate	57	54.8
High	9	8.7
Infant's age (month)		
Less than 6 months	32	30.8
Between 6-12 months	72	69.2

Table 2. Distribution of the mothers according to breastfeeding characteristics (n=104)

Characteristics	N	%
First feeding time after labor		
In the first hour	67	64.4
2-3 hours later	18	17.3
4 hours and later	19	18.3
First food given		
Breast milk	89	85.6
Formula	15	14.4
Knowledge about Colostrum		
Yes	21	20.2
No	83	79.8
Current breastfeeding status		
Yes	80	76.9
No	24	23.1
Status of using pacifier/bottle feeding		
Yes	78	75
No	26	25
Damage of using pacifier/bottle to breastfeeding		
Yes	43	41.3
No	61	58.7
Source of information about breastfeeding		
Healthcare personnel	52	50
Family elders	38	36.5
Internet	9	8.7
Written source	5	4.8

Table 3. Distribution of the mothers according to their characteristics about infant care (n=104)

Characteristics	Number (n)	Percentage (%)
Source for information about infant care		
Not receive	29	27.9
Family elders	40	38.5
Healthcare professionals	26	25
Written source	6	5.8
Internet	3	2.9
Status of using traditional practices in the infant care		
Yes	64	61.5
No	40	38.5

Traditional methods used		
Using amulets and charm	34	52.2
Yellow dressing when their infant has jaundice	19	29.2
Swaddling	9	13.8
Salting for preventing smell	3	4.6
Method of taking fever of infant		
By touching	61	58.7
With thermometer	39	37.5
From the general condition	4	3.8
Practice in case of fever		
Taking off infant's clothes	46	44.2
Taking him/her to hospital	31	29.8
Giving antipyretic	17	16.3
Wiping using cloth with vinegar	10	9.6

Table 4. Distribution of the mothers' attitudes towards vaccines (n=104)

Characteristics	Number (n)	Percentage (%)
Necessity of vaccines		
Necessary	97	93.3
Unnecessary	7	6.7
Thinking if they have side effects		
Yes	60	57.7
No	44	42.3
Status of knowing the side effects of vaccines		
Yes	63	60.6
No	41	39.4
Status of knowing the time of vaccination		
Yes	86	82.7
No	18	17.3
Source of information about vaccines		
Healthcare professional	73	70.2
Internet	18	17.3
Written source	8	7.7
Neighbors/relatives	5	4.8

Table 5. Families' knowledge and attitudes towards family planning methods (n=104)

Characteristics	n	%
Getting intentionally pregnant in the last pregnancy		
Yes	68	65.4
No	36	34.6
Status of knowing FP methods		
Yes	68	65.4
No	36	34.6
Receiving FP training from healthcare professionals		
Yes	36	34.6
No	68	65.4
Method used		
None	29	27.9
Condom	29	27.9
IUD	20	19.2
Traditional Methods*	14	13.5
Pill	10	9.6
Injection	2	1.9
Method used and given up		
Yes	29	27.9
No	75	72.1
Method quitted		
Pill	13	44.8
Traditional Methods*	11	37.9
IUD	2	6.9
Injection	2	6.9
Condom	1	3.4

Not: * Withdrawal and calendar method

Discussion

It was found in this study determining knowledge, attitudes, and behavior of the mothers with 0-1-year-old infants about infant and personal care that the mean age of the mothers was 29.08 ± 5.56 , 37.5% were secondary school graduates, and 84.6% were housewives. 54.8% of the mothers expressed their economic status as middle.

Placing the infant onto the breast and initiating breastfeeding within the first 30 minutes and 1 hour are a critical factor in initiating the milk production and maintaining breastfeeding which

is one of the baby-friendly hospital conditions (DiGrilamo et al., 2001; Sinusas & Gagliardi, 2001). Most of the participants (64.4%) fed their infants within an hour after birth and with breastmilk (85.6%).

The World Health Organization rated breastfeeding rates within an hour after birth as low (0-29%), moderate (30-49%), good (50-89%) and very good (90-100%). Studies conducted in various countries differ in terms of rates. For example, when the rate was 3.4% in Nepal, it was found as 78% in Madagascar (Baker et al., 2006; Mullany et al., 2008). In the present study,

starting to breastfeed within the first 30 minutes was in "good" category with 64.4%.

The milk that starts to release immediately after delivery and continues for 5-7 day after birth is called as colostrum. Colostrum is a clear yellow liquid with a pH of about 7.7. Colostrum has all the building factors necessary for the development and protection of the newborn. Colostrum is very rich in immunoglobulins. They bind toxins, bacteria and macromolecular agents and inhibit their absorption from the intestinal epithelium (Yurtsever, 1998). In the present study, 79.8% of the mothers stated that they had no knowledge about colostrum. It was determined that 23.1% of the participants were not breastfeeding their infants and 75% of them were using pacifiers or bottle.

Additionally, 61.5% of the mothers participating in the present study stated that they used traditional methods in the care of their infants. Traditional methods used were wearing amulet and charm at the rate of 52.2%, yellow dressing at the rate of 29.2%, and swaddling with the rate of 13.8%. In the study by Cetisli et al. (2014) it was determined that the participating women (67.9%) were putting amulet to the newborn's cloths/bed to prevent incubus; whereas, 24.6% of mothers were dressing their infants with yellow cloths to prevent jaundice in the study by Bolukbas et al. (2009). Another traditional practice that is not accepted by modern medicine today but widely used in our society is swaddling. The swaddle will cause hip dislocation to occur for those, who have tendency to congenital hip dislocation, and also lead the child to feel anxious and uneasy (Ozyazicioglu & Oncel, 2012). While the rate of swaddling was 20.1% in the study by Arisoy et al. (2014) this rate was 64.0% in the study by Karabulutlu (2014). In their study, Sulu Ugurlu et al. (2013) stated that 60.0% of the mothers were swaddling, 41.1% of them swaddled for the infant to have proper foot and hand and 23.4% of them swaddled the infant in order not to get cold while sleeping.

It was found that 93.3% of the participants expressed that the vaccines were necessary for their infants and 57.7% of them believed that the vaccines had side effects. 60.6% of the mothers stated that they knew the side effects of the vaccines and 82.7% stated that they knew the vaccination time. In a study conducted with 100 pregnant women and mothers, who just had

delivery, in Ankara University Medical Faculty Hospital (AUTFH), and 38% of the mothers expressed that they did not know when the first vaccination should be given (Akturk et al., 2004). In a similar study conducted by Ozmet et al. (2008) with 233 newly delivering mothers, 64.4% of the mothers gave right responses, 5.6% gave wrong responses, and 30% of them left this question unanswered. In the present study, a knowledge level close to these rates was determined. In the application of national vaccination schedules, changes are made according to requirements over time, thus, mothers may have mistakes about time but lack of information on the vaccination time is a potential factor in not having children vaccinated (WHO, 2019). In addition, the majority of mothers (70.2%) stated that they received information about vaccines from healthcare professionals.

It was stated that 65.4% of the mothers expressed that they intentionally got pregnant during their last pregnancy and they knew the family planning methods. Only 34.6% of the mothers stated that they received family planning training from healthcare professionals. While 77.1% of the women received counseling services in the study by Aktoprak, 48.2% of women were informed by healthcare professionals in the study by Sen and Erbek (Aktoprak, 2012; Sen & Erbek, 2001). While 27.9% of the mothers did not use any method, 27.9% of them used condoms and 19.2% stated that they used IUD. 27.9% of the mothers expressed that they used and gave up another method and these methods were pills (44.8%) and traditional methods (37.9%). The reasons for low rates of effective usage of FP method can be summarized as training inadequacy and wrong beliefs about FP methods. Erenel and Eroglu found that FP training and counseling given in the postpartum period and then continued through home visits significantly affected women to use modern methods (Erenel & Kavlak, 2011).

Conclusion and Recommendations: In conclusion, knowledge, attitudes, and behaviors of mothers having 0-1-year-old infants about infant and personal care were investigated. It was seen that the majority of the mothers participating in the study continued to use different traditional practices about infant care. In accordance with these results, it may be recommended for healthcare professionals to inform mothers about the practices related to newborn care. All the traditional methods believed and applied by the

family should be known and appropriate health training should be planned in order to reduce the traditional practices that may harm health and the risks they can bring.

Childhood vaccinations are a vital part of preventive healthcare services. In addition to providing the necessary technical infrastructure and personnel in vaccination activities, another important issue is to inform the family of the child adequately and to convince them about the necessity of the vaccine.

Furthermore, it is recommended to give the healthcare professionals an opportunity to explain problems of women during postpartum follow-ups, to collect data about their thoughts about Family Planning and provide training on Family Planning to women.

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